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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Avraham Zakai

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EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT

PAPER NUMBER

3753

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,198	Applicant(s) ZAKAI ET AL.	
	Examiner Ramesh Krishnamurthy	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

This office action is responsive to communications filed January 25, 2008.

Claims 1 – 4 and 6 - 41 are pending.

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 – 4, 6 - 15 and 28 – 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Each of the independent claims 1, 12, 28 and 41 recite the limitation “periodically prohibit fluid flow” for which there is no support in the disclosure as originally filed. A “pulsating” flow does not mean the same thing as a periodic flow.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 4 and 6 - 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Jakobsson (WO 99/28722).

Jakobsson discloses (see Fig. 5, for example), a fluid metering system comprising: a fluid supply line (25), a flow meter (17) for measuring a fluid flow having a minimum measuring threshold (inherent to a flow meter), a valve (8) (See Figs. 5 and 7,

for example) wherein the valve (in the embodiment of Fig. 7) includes an inlet (15) and outlet (20) and is shiftable between an open position (at high flow rates when the pressure keeps the valve body (3) away from the valve seat (9), Fig. 7) and a pulsating position, in which the valve is adapted to prohibit fluid flow until a pressure difference over the valve ports is built-up (see pulsator (19) in Fig. 7 and page 7, lines 7 – 22). It is noted that Jakobsson explicitly mentions the valve positions (page 7 lines 7 – 8 and lines 19 – 20). Since Jakobsson is concerned with measuring leaks and as such does measure very small flows (first paragraph, page 1 and also page 6, lines 20 – 21). The arrangement disclosed in Jakobsson necessarily performs the method recited in claims 12 – 15. The limitation concerning average flow through the system being maintained at a constant rate absent measurable fluctuations is inherent to the arrangement disclosed in Jakobsson in that the presence of the spring and magnet provide the damping to absorb such fluctuations and the position of the valve body is thereby unaffected.

Regarding claim 16, it is noted that Jakobsson shows in Fig. 7, a valve (8, Fig. 5) comprising an inlet port, (15, Fig. 7) and an outlet port (20, Fig. 7) connectable respectively to a downstream and upstream side of a fluid supply line (25, Fig. 5). Said valve, having a housing (8, Fig. 8) defining a control chamber extending between the inlet and outlet ports (15, 20, Fig. 7) and a sealing member (3, Fig. 7), the dimensions of the valve seat and valve body (9, 3, Fig. 7) define a bleed aperture determining a minimal flow threshold through the control chamber. The sealing member (3, Fig. 7) is displaceable between an open and a closed position depending on the pressure difference over the sealing member (3, Fig. 7). Biasing of the sealing member with a

magnet is disclosed (page 6, lines 10 – 11 and page 7, lines 10 – 11). The sealing (4) is disclosed to be placed on the valve body (page 4, lines 26 – 27) and thus meets claim 21.

The pipeline (21) is regarded to be part of a municipal network and portions of the supply line and devices fitted thereon (see Fig. 5) have an enclosed volume and thus necessarily function as fluid accumulators.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 30 – 32 and 34 - 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jakobsson as applied to claims 1 – 4 and 6 - 29 above, and further in view of Lam et al. (US 5,921,276).

The disclosure of Jakobsson as set forth above discloses the claimed invention with the exception of explicitly disclosing a damping assembly received between the plunger and a cup member.

Lam et al. discloses pressure responsive sealing assembly comprising a damping assembly disposed between a plunger and a stationary cup member (5) for the purpose of providing a damping of the plunger in a compact arrangement thereby minimizing the pressure loss of the fluid flowing through the valve.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the arrangement disclosed by Jakobsson a damping assembly received between the plunger and a cup member for the purpose of providing a damping of the plunger in a compact arrangement thereby minimizing the pressure loss of the fluid flowing through the valve, as evident from Lam et al.

It is noted that Lam et al. does disclose a sealing sleeve (22) such that the facing edges of the plunger and the stationary cup (5) have complementary mating shapes and when mated form an egg-like shape.

8. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jakobsson as applied to claims 1 – 4 and 6 - 29 above.

The arrangement in Jakobsson discloses the invention claimed in claim 41 with the exception of explicitly disclosing a fluid flow responsive impeller. Jakobsson does disclose a flow meter (17). Official notice is taken by the examiner of the fact that it is conventional to provide a flow meter having a fluid flow responsive impeller therein for

the purpose of providing a measure of the flow therethrough. The combination of spring (7) and magnets (1, 2) constitute the suspension mechanism in Jakobsson.

9. It is noted that claim 33 contains allowable subject matter in regard to the prior art of record. However, claim 33 currently stands rejected under 35 U.S.C. 112, first paragraph, as set forth above.

Response to Arguments

10. Applicant's arguments filed January 25, 2008 have been fully considered but they are not persuasive. In regard to the applicant's arguments concerning the rejection under 35 U.S.C. 112, first paragraph, as set forth above in paragraph 2, it is noted that statements in the specification such as "valve enters a pulsating position having a closed state thereby substantially restricting flow through the system" and similar recitations pertaining to a pulsating mode do not support the claimed recitation of "periodically prohibit fluid flow" in the independent claims 1, 12, 28 and 41. In regard to the arguments concerning the Jakobsson reference, it is noted that applicant's argument "Contrary to Jakobsson's valve, present application teaches a valve that uses accessories such as the piping itself, which are located downstream of the pressure control valve in order to determine the threshold. This is achieved, inter alia, by the elastic properties of the piping downstream of the valve, wherein change in the diameter of the piping eliminates the need for the shunt piping (18) as taught by Jakobsson" pertains to limitations not presently recited in the instant claims. Furthermore, as noted above, the pipeline (21) in Jakobsson is regarded to be part of a municipal network and portions of the supply line and devices fitted thereon (see Fig. 5) have an enclosed

volume and thus necessarily function as fluid accumulators. In regard to the arguments concerning the Lam reference, it is noted that it is the teaching of Lam reference pertaining to the damping assembly that has been relied upon in the rejection. Whether Lam discloses a valve for high flow rates or not is not relevant to the rejection set forth above.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson, can be reached on (571) 272 – 4887. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3753

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ramesh Krishnamurthy/

Primary Examiner, Art Unit 3753